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09/895,577	06/28/2001	Sachin U. Naik	200304448-1	6934

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EXAMINER	
MOORE JR, MICHAEL J	
ART UNIT	PAPER NUMBER
2616	
MAIL DATE	DELIVERY MODE
04/18/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/895,577	NAIK ET AL.	
	Examiner	Art Unit	
	Michael J. Moore, Jr.	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-16* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims **9 and 10** are objected to because of the following informalities:

Regarding claim **9**, on line 4, the word "the" before word "elapsed" should be "an".

Regarding claim **10**, on line 1, the word "the" before word "identifier" should be "an".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1-5 and 7-16** are rejected under 35 U.S.C. 102(e) as being anticipated by Borella et al. (U.S. 6,643,259) ("Borella"). Borella teaches all of the limitations of the specified claims with the reasoning that follows.

Regarding claim **1**, "a method for controlling data traffic over a network" is anticipated by the method shown in Figure 4 performed by the data network 10 of Figure 1.

"Transmitting a message from a first node to at least a second node of the network" is anticipated by the transmission of an initial window of data (message) by first network device 14 (first node) to second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 27-30.

"Calculating an elapsed time of the transmission of the message of step (a)" is anticipated by the round trip time measurement (elapsed time) by the return trip timer as spoken of on column 9, lines 43-49.

Lastly, "determining whether the second node has replied to the message transmitted in step (a) from the first node" and "transmitting a subsequent message from the first node upon receipt of the reply from the second node or upon exceeding an elapsed time threshold" is anticipated by the transmission of subsequent data segments upon receiving ACK signals (reply) from the second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 44-49.

Regarding claim **2**, "constructing the message to be transmitted" is anticipated by the setting of the congestion window to an initial window value before transmission as spoken of on column 9, lines 6-9.

Lastly, "maintaining transmission information relating to the message" is anticipated by the congestion window (transmission information) that is adjusted by the maximum segment size in response to ACKs received as spoken of on column 9, lines 44-47.

Regarding claim **3**, "receiving a reply message from the at least one second node" is anticipated by the ACK signals sent from second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 44-49.

Regarding claim **4**, "storing the following transmission data: message size, transmission sending time and address of the at least one second node" is anticipated by the maintaining of a maximum segment size on column 9, lines 43-47, packet destination address information on column 5, lines 55-59, as well as round trip time on column 9, lines 47-50.

Regarding claim **5**, "detecting whether a message has been transmitted to the at least one second node" and "transmitting a subsequent message to the at least one second node upon detecting the address of the at least one second node" is anticipated by the transmission of subsequent data segments (subsequent message) by first network device 14 upon receiving ACK signals (reply) from the second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 44-49 as well as the destination address information 100 (address of particular node) spoken of on column 5, lines 55-58.

Regarding claim **7**, "a method for controlling the rate of transmitting over a network from a node of the network" is anticipated by the method shown in Figure 4 performed by the data network 10 of Figure 1.

"Storing information relating to the transmission of data to a node on the network" is anticipated by the congestion window (transmission information) that is first set to an

initial window value and is then adjusted by the maximum segment size in response to ACKs received as spoken of on column 9, lines 44-47.

"Determining a time interval since the initiation of the data transmission" is anticipated by the round trip time measurement (time interval) by the return trip timer as spoken of on column 9, lines 43-49.

Lastly, "transmitting additional data onto the network upon receiving a reply relating to a prior data transmission or upon exceeding a threshold time interval" is anticipated by the transmission of subsequent data segments (additional data) upon receiving ACK signals (reply) from the second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 44-49.

Regarding claim **8**, "transmitting subsequent amounts of data to a particular node on the network upon locating an address of the particular node" is anticipated by the transmission of subsequent data segments (subsequent data) by first network device 14 upon receiving ACK signals (reply) from the second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 44-49 as well as the destination address information 100 (address of particular node) spoken of on column 5, lines 55-58.

Regarding claim **9**, "a first node coupled to at least one second node by a transmission medium, the first node including a device for storing data" is anticipated by first network device 14 (first node) coupled to second network device 16 (second node) as shown in Figure 1 that both contain a processing system and a memory (device for storage of data) as spoken of on column 3, lines 62-65.

"The first node including means for determining the elapsed time between data transmission" is anticipated by first network device 14 (first node) that sets a return trip timer that is used to measure the round trip time (elapsed time) as spoken of on column 9, lines 27-30, and column 9, lines 43-49.

Lastly, "wherein data is transmitted from the first node upon receipt of a reply from the at least one second node or upon exceeding an elapsed time threshold" is anticipated by the transmission of subsequent data segments (data) upon receiving ACK signals (reply) from the second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 44-49.

Regarding claim **10**, "wherein the storage device stores the identifier of the nodes that the first node has transmitted data to, the first node transmitting additional data to the at least one second node before receipt of a reply upon determining that a transmission is outstanding at the at least one second node" is anticipated by the retransmission of unacknowledged packets (additional data) upon a time out (before receipt of a reply) of the first network device 14 as spoken of on column 9, lines 54-63.

Regarding claim **11**, "wherein the storage device stores the size of the data transmitted to the at least one second node and the elapsed time threshold value is a function of the data size" is anticipated by the congestion window that is first set to an initial window value and is then adjusted by the maximum segment size (size of data) in response to ACKs received as spoken of on column 9, lines 44-47.

Regarding claim **12**, "means for deferring transmission of messages by the first node onto the network, the deferred message(s) being transmitted upon exceeding an

elapsed time threshold value" is anticipated by the retransmission of unacknowledged packets (deferred messages) upon a time out (elapsed time threshold value) of the first network device 14 as spoken of on column 9, lines 54-63.

Regarding claim **13**, "means for deferring transmission of message(s) by the first node onto the network, the deferred message(s) being subsequently transmitted upon the first node receiving a reply from the at least one second node" is anticipated by the transmission of subsequent data segments (deferred messages) upon receiving ACK signals (reply) from the second network device 16 (second node) of Figure 1 as spoken of on column 9, lines 44-49.

Regarding claim **14**, "wherein the first node comprises a processor and the storage device is an outstanding request queue, the outstanding request queue being at least partially maintained in the processor" is anticipated by first network device 14 (first node) shown in Figure 1 that contains a CPU as spoken of on column 3, lines 62-65 as well as a buffer (queue) as spoken of on column 13, lines 60-64.

Regarding claim **15**, "wherein the deferred message(s) are maintained in a deferred message queue, the deferred message queue being at least partially maintained in the first node" is anticipated by the data buffering (queue) spoken of on column 13, lines 60-64 where an accumulated congestion window of data is encapsulated and sent to the second network device 16.

Regarding claim **16**, "wherein the first node and the at least one second node include a processor" is anticipated by first network device 14 (first node) coupled to

second network device 16 (second node) as shown in Figure 1 that both contain a processing system as spoken of on column 3, lines 62-65.

Allowable Subject Matter

4. Claim **6** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim **6**, Borella teaches the method of claim **1**. Borella does not teach where the elapsed time calculation comprises calculating: *(L*N)/R*, where L is the size of the transmitted message, N is the virtual number of nodes, and R is the minimum transmission rate of the network.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Siu et al. (U.S. 6,252,851), Mallory (U.S. 2002/0034182), and Yim (U.S. 2003/0206527) are other references pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM